A MODIFICATION OF THE BRADFORD FRAME FOR THE TREATMENT BY SUSPENSION OF FRACTURE OF THE FEMUR IN YOUNG CHILDREN.

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THE treatment of fracture of the femoral shaft in infants and young children by suspension of the affected leg, or of both legs, is a favorite method with a large number of the profession. For carrying out the suspension, apparatus has been attached to the bed (Stimson, Scudder) and to the ceiling (Stern), and the baby carriage has been utilized. The use of the bed confines the child to the house, while with the carriage nursing becomes more difficult and inconvenience is experienced in moving the child through the house.

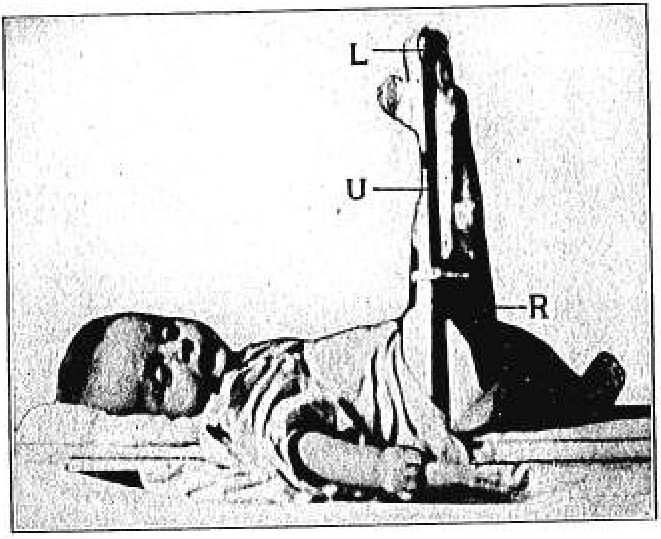
Several years ago, acting on a suggestion made by my friend, Dr. H. T. Price, I devised a simple attachment to the Bradford frame for use in an uncomplicated fracture in a nursing infant. It proved so successful in this and subsequent cases that it can be recommended as a means for carrying out this method of treatment in an ideal manner.

The gas-pipe frame is made in the usual way (about four inches longer than the patient and a little less in width than the distance between the shoulders). Opposite the hip-joint of the fractured leg a T connection is placed; this must be screwed tightly, or riveted, to prevent turning. Into the T is screwed an upright piece of pipe, long enough to reach about four inches above the suspended foot. An L connection and a short (two to three inch) transverse piece of pipe, ending in a cap, completes the attachment. A single piece of canvas is used for the covering, a hole being made in the side for the upright to pass through. When it is desired to suspend both legs, the portion of the frame on which the legs ordinarily rest may be made much shorter, merely long enough to prevent the frame from tipping, and the transverse pipe must be longer.

The patient is fixed on the frame in the customary manner and the adhesive straps, used for extension, are simply fastened to the transverse pipe at such a height that the buttock of the affected side swings clear, or both legs may be so suspended, if preferred. Carrying the napkin around the upright fixes the hips more firmly; if greater security is desired, a piece of adhesive plaster may be passed around the groin and fastened to the base of the upright. With coaptation splints, this gives a very secure dressing, the upright acting as a protection against injury.

The case represented in the illustration is that of a six months old baby, in whom an untreated fracture at birth had resulted in marked bowing and shortening. Osteotomy and subcutaneous division of the adductors at the groin were performed and the child placed at once upon the frame. A straight leg with no shortening was secured.

FIG. 1.



Fracture of femur, treated on a modified Bradford frame. *U*, upright, which is screwed into T-connection on right side of frame. *L*, elbow with short transverse piece of pipe (not showing). *R*, rubber tissue, covering coaptation splints and dressing, to prevent contamination.